

# U.S. Geological Survey National Water Quality Laboratory

#### **Capabilities Summary**

USGS National Water Quality Laboratory P.O. Box 25585 Denver, CO 80225-0585 Phone: 303-236-2000 NWQL USGS-visible web site: http://wwwnwql.cr.usgs.gov/USGS

The U.S. Geological Survey (USGS) National Water Quality Laboratory (NWQL) offers environmental analytical services, including inorganic, organic, and radiochemical constituents, and provides high-quality, reproducible data. The laboratory specializes in trace- and ultratrace-level analyses of water, sediment, and tissue, and the taxonomic identification and quantitation of benthic invertebrates. The NWQL also provides specialized services to its customers, including project planning, method development, customized projects, and data management.

## **Areas of Expertise**

- inorganic, organic, and radiochemistry
- trace- and ultratrace-level detection
- advanced environmental analytical methodologies and custom analytical services
- different matrices (water, wastewater, sediment, tissue)
- taxonomic identification and quantitation of benthic invertebrates
- methods research and development (R&D)
- · methods scale-up for high capacity analytical support
- quality-assured supplies for field sampling

#### Personnel

- diverse staff of analytical and research scientists and technicians
- expertise includes analytical chemistry, environmental biology and chemistry, information technology, supply and business administration

#### **Facilities**

- · state-of-the-art secure facility
- · sequestered area for chain-of-custody samples
- high-production capability
- high-efficiency-particle-arresting (HEPA) filtered air to remove airborne contaminants

#### Laboratory Information Management System (LIMS)

- customized LIMS manages workflow from receipt of samples through data release to customers and archival
- sample-status page provides customers web-based access to sample status information, including preliminary results

#### **Customer Service**

- online laboratory services catalog is searchable by analyte, schedule, laboratory and parameter codes
- 1-866-ASK-NWOL or by email at LabHelp@usgs.gov
- email LabLogin@usgs.gov for receipt-of-sample issues
- · online sample status and tracking
- coordination of USGS Department of Defense Earth Science Program (DODESP) analytical support

## **Full Service Analytical Support**

- Analytical chemistry consulting
- Commercial contract laboratory capability for: Regulatory compliance (TestAmerica, Inc.) Radiochemical (Eberline Services, Inc.) Stable isotopes (carbon) (Woods Hole Oceanographic Institute)

#### Commitment to Safety, Health, & Environmental Compliance

- fully audited and compliant with Federal and State of Colorado regulations
- Metropolitan Wastewater Reclamation District discharge permit: recipient of Gold (2005–2008, 2011–2012) and Platinum performance awards (2009)
- · live inventory of all chemicals
- U.S. Department of Agriculture-approved and permitted to receive regulated soils
- continuing effort toward green analytical chemistry, including minimizing energy usage, waste streams, and waste disposal costs

# Quality Assurance & Quality Control External Accreditations

- National Environmental Laboratory Accreditation Program (NELAP)
- States of New York, Texas, Florida, and North Carolina for nonpotable constituents

#### Performance Testing, Audits, and Evaluations

- Environment Canada Federal Provincial Studies
- NELAP
- · New York State Department of Health
- USGS Branch of Quality Systems
- · Chesapeake Bay Blind Audit
- Gulf of Mexico Alliance (GOMA) round robin

# Representation on Scientific Committees

- ASTM International
- · National Environmental Methods Index
- Multi-Agency Radiological Laboratory Analytical Protocols
- · Methods and Data Comparability Board